



Kennedy-Epstein, R. (2019). 'So Easy to See': Muriel Rukeyser and Berenice Abbott's Unfinished Collaboration. *Literature and History*, 28(1), 87-105. <https://doi.org/10.1177/0306197319829379>

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Link to published version (if available):
[10.1177/0306197319829379](https://doi.org/10.1177/0306197319829379)

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***So Easy to See*: Muriel Rukeyser and Berenice Abbott's Unfinished Collaboration**



Trace/Force/Focus¹

On August 5th, 1948 the photographer Berenice Abbott wrote to the poet Muriel Rukeyser:

Darling Muriel,

I was overjoyed to hear from you and I hope you will write me often and tell me more about yourself. As you must know I miss you very much and need you. There is a very important place in my heart for you that I doubt very much another will fill -- a trace/force/focus of abstraction and recognition of sorts -- a much needed support, communication, call it what you will. I was acutely sad to see nothing of you here. I wish we could finish that book but you need to be here.... I am indeed curious to know why the next holds so much for you.

I need your moral support. I have been poor with all this waiting-- every thing goes out -- nothing comes in -- or could I see some exchange. I hope we can do some work together some day. Do you think that will be possible?²

In truth they had probably been lovers before Rukeyser left New York to California to raise her young son alone³. More importantly, Rukeyser and Abbott were each other's intellectual and artistic foils—and sometimes collaborators—in the Cold War period, a relationship between two of the 20th-century's most versatile artists that has been, for the most part, relegated to the archives. For much of the 1940s and 50s, and into the 60s, in a period in the U.S defined by the elevation of the sciences over the arts—when everybody could be “scientific Americans”⁴—they shared a similar goal: to develop new methods for demonstrating the uses of and relationships between the arts and sciences. For Abbott this aim was manifest in her desire to bring “science to the public by means of photography”⁵ through her invention of the Super-Sight camera. By “reversing the operation of the camera obscura”⁶, the camera enabled her to enlarge an object's projection before exposure, producing an incredibly detailed image (as in Rukeyser's eye, above). Already a master of modernist realism, as demonstrated in her Paris portraiture and the Federal Art Project funded series *Changing New York* (1939), Abbott developed the Super-Sight to gain “greater realism in pictures.” This would prove beneficial not only to making detailed images of scientific methods in action, but to the development of photographic realism.⁷ Seeking funding for her project, Abbott wrote in a letter to Dr. Charles C Adams of the New York State Museum,

We live in a world made by science. But we—the millions of laymen—do not understand or appreciate the knowledge which thus controls daily life...The function of the artist is needed here, as well as the function of the recorder. The artist through history has been the spokesman and conservator of human and spiritual energies and ideas. Today science needs its voice. It needs the vivification of the visual image, the warm human quality of imagination added to its austere and stern disciplines. It needs to speak to the people in terms they will understand. They can understand photography preeminently.⁸

Rukeyser's interest in the sciences was about finding "a new language for discovery,"⁹ borrowing something of the alchemical processes of scientific inquiry. She spent the postwar years advocating for the "use" of poetry—and the artistic imagination more broadly—as an untapped resource she considered just as valuable as scientific knowledge. This was demonstrated in her major non-fiction works of the 1940s and 50s, including *The Life of Poetry* as well as her experimental biographies about the physical mathematician Willard Gibbs, the politician Wendell Wilkie, and the unfinished book on the anthropologist Franz Boas. In each work she used experimental formal strategies to situate her subjects in a way that demonstrates, as Peter Middleton notes, their roles in "making possible vital new modern American theories of the public life of social, as well as physical, systems, theories that point to a progressive American future."¹⁰

In *The Life of Poetry* Rukeyser, writes, "If [poetry] were a metal, the Un-American Activities Committee, and several other committees, would concern themselves. Our scientists would claim their right of experiment and inquiry."¹¹ Both Abbott and Rukeyser wanted to make a claim on the sciences as women and artists, during a time when the field was not only dominated by men, but when the notion of specialization was used to separate fields of study from each other, defining who had the right to participate in intellectual inquiry. In 1959, *The Bulletin of Atomic Scientists* put out a special issue on "Science and Art" that almost exclusively featured the writings of male scholars and scientists (and one "wife") about the work of male scientists and artists. Through their collaboration, Rukeyser and Abbott worked against these gendered and bifurcating systems in order to show how "science and art meet and might meet in our time"¹² as sources of imaginative possibility and social progress. In doing so, they engender

questions about what kinds of collaborative practices are sanctioned, about women's bodies and lesbian desire, about the ontology of things and the everyday, about materialist philosophy, and about the radical possibilities of interdisciplinarity.

Despite the fact that their collaborative photo-text project was to be titled *So Easy to See*, it is anything but that—the final version has been lost, or was never fully completed, and instead there remain drafts, descriptions, correspondences and fragments, to be pieced together from across various archives. The incomplete record of Rukeyser and Abbott's collaboration is not particularly surprising, considering the kinds of artists they were—radicals, dissidents, women, lesbians—and the politics of the works themselves, which challenged the accepted gender and disciplinary binaries inculcated in postwar cultural institutions, and taken on by self-taught scientists. Experiencing a similar career trajectory, Rukeyser and Abbott both earned a tremendous amount of early success at the forefronts of transatlantic modernist and left-wing political and artistic movements, and both experienced difficulties in the Cold War period, a time that saw the effective depoliticization of artistic production and public discourse, and the reinscription of the gender and disciplinary binaries that had been challenged in the previous decades. More than Abbott, who also ran up against the sexism of Cold War artistic norms and academic sciences, Rukeyser found herself hounded by the FBI and Un-American Activities Committee, which compounded her difficulties in finding support for the kinds of experimental projects she wanted to undertake. Despite their marginalization, both Rukeyser and Abbott, individually and together, produced work throughout the subsequent decades that formulated new ways

of seeing and reading, often through collaboration, work that was for many years undervalued and overlooked, and thus effectively lost.

By making visible this lost collaboration, this essay participates in the recovery of an innovative and exciting modernist collaboration and asks us to see both the lost potential of its inventiveness as well as to contextualize its disappearance. In order to see their work we must also undertake an exploration into the cultural mechanisms that obfuscated it at mid-century. The recovery of such a project demonstrates the continued importance of collaboration between women, not only between artists but between scholars who teach each other how to see and look for things—texts, histories, images—that are not readily visible and available. Collaboration has been and continues to be essential for effective feminist scholarship, so dependent as it is on archival recuperation and the reconstruction and reanimation of texts and authors who have been lost.¹³ This is necessary not only so that women can be read and taught as makers and subjects of history, but also because scholarly collaboration produces a better and more complete understanding of the histories, networks, modes of production, and communities that defined the modernist period.¹⁴ Through this another kind of collaborative project blooms, between an author and a scholar, the person who encounters a work in an archive decades later, who will become editor, publisher, translator and theorist. Collaborating, then, becomes a particularly complex feminist project about recovery, legacies, counter-cans and pedagogy, as well as about the ways in which the writers and artists in the period were themselves producing and communicating with each other. In *The Life of Poetry*, Rukeyser writes of how a work is formed through a collaboration between the writer and reader, changing always in that

moment of encounter. She writes, “facing and communicating, that will be our life, in the world and in poetry. This is the knowledge of communication, and it is the fear of it which has cut us down. Our lives may rest on this; and our lives are our images.”¹⁵

Use, Democracy and Collaborative Modernism

When Abbott writes to Rukeyser of their shared intellectual and artistic sympathies, it not only gives a sense of the intimate bond between the two in formulating and stimulating each other’s work, but signals something of the important nature of collaboration for modernism more broadly. Both Abbott and Rukeyser had undertaken multiple collaborative projects with other artists before working together, engaging many of the aesthetic and political aims of modernism. In many ways their insistence on experimental and collaborative formal practices not only underscores their radical vision for the uses of art in democracy, something they believed *So Easy to See* would demonstrate, but also indicates how collaboration can create alternative spaces of knowledge and solidarity in periods of political repression. In a draft of the *Introduction* to their book, Rukeyser begins:

In our time there has been much talk about the differences between truth and reality. We are familiar with contradictions, our society is based on them. And this division, with truth on the one hand and reality on the other, is known to us; it is as clear and obvious (as) moonrise and morning, bombing in peacetime. The contradictions around us are not simply contradictions of meaning, but of the whole visible world. In the process of setting barriers between truth and reality, we have gone ahead with barrier building. And now, all around us, we see the walls: between people and people, between art and science, between idea and idea. Those of us who mean in our lives the unity of people, the unity of nature and knowledge, mean also the unity of imagination.¹⁶

In *The Life of Poetry* Rukeyser argues for this unity through the transgressing of false boundaries, writing, “our time depends not on single points of knowledge, but on clusters and combinations,” and she brings together diverse sources and genres to explore these crossings, from Van Wyck Brooks’s “usable past” to Karen Horney’s notions of relational psychology. She wasn’t alone at mid-century: her female contemporaries like Virginia Woolf, Rebecca West, H.D., Zora Neale Hurston and Doris Lessing, among others, explored similar tensions between “truth and reality” through equally complex representational strategies—the “perpetual marriage of granite and rainbow,” as Woolf describes it. Rukeyser and Abbott assert through their collaboration that by failing to see the complex interconnections of “unity” and “correspondences” in the visible world we learn to accept the “contradictions in meaning” of the symbolic world, and that it is upon these divisions that hierarchies and oppression are predicated. Rukeyser’s example of this violent contradiction, of course, is to point out that peace is not merely the absence of war. Ultimately, she is making an assertion about what forms of thought, and what art forms, make possible a fully realized democracy—that is, one in which we see ourselves as mutually interdependent and connected. In 1958, Robert Oppenheimer would write, “We can have each other to dinner. We ourselves, and with each other, by our converse, can create, not an architecture of global scope, but an immense, intricate network of intimacy, illumination, and understanding. Everything cannot be connected with everything in the world we live in. Everything can be connected with anything.”¹⁷ Rukeyser returns to this idea over and over, writing in the late seventies, “not to let our lives be shredded, anything away from anything,”¹⁸ and she worked to create a language for thinking that could demonstrate this. Of the

composition of *Willard Gibbs* she would write, “I needed a language that was not static, that did not see language as a series of points, but more as a language of water.”¹⁹

By the time Rukeyser and Abbott began to work together, Rukeyser was deeply immersed in finding a “‘system of relations’ that could be expressed symbolically,” and there has been considerable attention paid to the ways in which she developed formal modes to translate these theories, from radial documentary and avant-garde poetics to experimental theatre, but especially though the combination of text and image.²⁰ She was also practicing this “unity of imagination” through a series of collaborative projects and multi-form experiments, beginning in the mid 1930s. With the photographer Nancy Naumberg, she famously documented the stories of miners dying of silicosis in Gauley Bridge West Virginia, resulting in her modernist masterpiece *The Book of the Dead* (1938), though it was never published with the photos. In the photo-essays “Adventures in Childhood” and “Worlds Along Side” for *Coronet* Magazine in 1939, with Rudolph Von Charles Ripper, an Austrian artist and political exile who fought in the Spanish Civil War, she worked on a long, illustrated poem, *The Soul and Body of John Brown* (1940), about the American abolitionist who tried to lead a slave liberation and was hanged for treason. With the filmmakers Ben Maddow and Lee Bobker, Rukeyser wrote the scripts for two films about the poor and socially marginalised: *A Place to Live* (1941), which was shown at a Documentary Film festival at MoMa along with other WPA-era classics like *The River*; and another film, *All the Way Home* (1957). She also collaborated on text and image projects while working for the Office of War Information (OWI) as a visual information specialist in 1942, a position from which she resigned in 1943 after Hoover began an investigation of the OWI as a “pro-communist” agency, an investigation in

which Rukeyser, monitored by the FBI from 1937 until the mid-70s, found herself a central target.²¹ In response to her disappointing experience at the OWI, she wrote an essay, “Words and Images” (1943), in which she writes about photo-text collaboration: “the point is not the naming of a picture, but a reinforcement which is mutual.”²²

Like Rukeyser, Abbott collaborated often. In 1920s Paris she was preeminent as a portrait photographer, first learning from and working for Man Ray, and then working on her own with a successful Left Bank studio and by giving solo exhibitions in Paris. Ensclosed in the expatriate community, she photographed the major artists of her day, and particularly the women of the Left Bank, still considered to be the center of experimental, lesbian and radical modernisms in the 1920s (Barnes, Brooks, Flanner, Heap, etc). She curated and recuperated Eugene Atget’s work, which she described upon first seeing as “the shock of realism unadorned,”²³ and brought it to the US. In 1929 she moved back to NYC and remained a vital figure through the 30s with her ten-year New Deal Federal Art Project, *Changing New York* (1939), which she produced with her partner Elizabeth McCausland, who wrote the captions, though the original version of the book, much more political and avant-garde, has never been published. During Abbott’s Paris portrait phase she had also wanted to collaborate with writers, according to Julia Van Haaften, and in the 1950s-60s had been in-conversation with Janet Flanner, Kay Boyle and Peggy Guggenheim about a possible collaborations, though none were ever realized. Abbott asserted a view of photography more generally as collaborative, recognizing that her style appealed more to women than Man Ray’s because she treated women sitters as “human beings” rather than “beautiful art objects.” She wrote in 1963, “to photograph a person there must be an exchange—a

cooperation....No one was ever a still life—a pattern—an ‘expression of myself.’”²⁴ This is not dissimilar to Rukeyser’s notion of a mobile and interactive poetry of “meeting places,” where meaning is made between writer, text and reader.

Abbott’s notions of collaboration and interaction found their apotheosis in her documentation of the transformation of the social landscape of New York City, and America more generally, in the 1930s. With McCausland, the progressive art critic, she developed a theory for a modernist-realist mode. Weissman writes, “Abbott’s idea of a realist image did possess certain unvarying characteristics, including emphasis on the relationship of photography to history and on a communication-oriented practice. The image’s communicative role: it is conceived not as a one-way message but as a two-way dialogue. Abbott expected her viewers to question—and act on—their own perceptions. Rather than distinguish between the social- and communication-oriented and the modern, or the documentary and the realist, or the realist and the avant-garde, Abbott hoped to eliminate these boundaries.”²⁵ Abbott and McCausland’s desire to work across boundaries was manifest in what they described as a “Great Big Democratic Book” of America that mixed the former’s photographs and the latter’s text. However, it was never published; even the version of *Changing New York* (1939) that was published was considerably different from the radical and lyrical one Abbott and McCausland first made together. In the original version, the transformation of the social and political landscapes of New York is shown through the interaction of text and document, past and present—a radical aesthetic in which the viewer interprets and interacts with the material. The publisher, E.P. Dutton, not only wanted the project to be a simple guide book (it was published just before the 1939 World’s Fair in Queens), but was clearly

wary of the radical social and political intent of the original project. Suzanna Calev, archivist at the Museum of the City of New York, wrote about the original project, with examples from the archives. Here is McCausland's original text that accompanied Abbott's photograph, "Gun Smith and Police Department, 6 Centre Market Place, Manhattan":

Content is inseparable from form here. Of other photographs in this series, it has been said that composition is dynamic, form powerful, organization of parallel and diagonal lines rhythmic and moving, as if subject matter and style could be divided. In this picture, subject matter is form. Later ages may look at Gunsmith and Police Department with the same detachment that we show in viewing African Negro sculpture, unaware of ceremonial signification. But to the New York of 1937 the photograph says one thing: Here is a gun, pointing at a police department. It is an unavoidable comment. No doubt many people have seen the gun over Frank Lava's shop. Some have photographed it. This conception, however, is the artist's unique contribution of significance. Again, the basic truth of photography as a medium for art is demonstrated, that the act of creation must be envisioned before the shutter is clicked. The completed picture must be seen mentally before the finger is lifted to expose the negative.²⁶

The published version reads: "Frank Lava's gun shop was founded in 1850 by Eli Parker. It closed up during the Civil War, but was re-opened in 1870 by ancestors of the present owner. The Lava shop used to repair work for the police, until the department retained its own armorers. It still does work, however, for the sheriff's staff."

McCausland's multivalent discussion of aesthetic and political forms is replaced with mundane captioning instead.

As both Terri Weissman (*The Realism of Berenice Abbott*) and Catherine Gander (*Muriel Rukeyser and Documentary: The Poetics of Connections*) point out, the kinds of multi-disciplinary and cross genre photo-text projects that Abbott and Rukeyser undertook, alone and together, were emblematic of the ethos of the WPA era 30s (not surprisingly, the only monographs dedicated to each artist are on this radical mode of

documentary). Abbott describes the photo book as a “loud speaker,” writing “It amplified what is said. Not hidden away in portfolios, not put on a wall necessarily, but published—that is the rightful destiny of photographs.”²⁷ Rukeyser asserts, in her 1938 poem *US. 1*—itself a documentary and scientific exploration of the effects of silicosis on miners—that “poetry can extend the document”; she continues, in *The Life of Poetry*, that situating a text and image “in this combination...there are separables: the meaning of the image, the meaning of the words, and a third, the meaning of the two in combination. The words are not used to describe the picture, but extend the meaning.”²⁸ In this sense, she saw collaboration not only as a way to make new modes of representation, but to make new modes of thought.

Certain Ways of Seeing/Adventures in Seeing/ Seeing Things

“Photography is a new way of seeing,” Abbott opens her 1941 *A Guide to Better Photography*; “it is a matter of the imagination, of seeing what the human eye had been too lazy or too blind to see before.”²⁹ In 1942 Abbott began to develop what would become her Super-Sight Camera, “an ingenious and deceptively simple system of direct image capture,”³⁰ as biographer Julia Van Haaften describes it. Abbott wrote her idea down and sent it to herself, with witnesses, in order to “prove and date her invention.”

I had previously projected objects in my enlarger, but only transparent objects can be so treated. While considering how to make photographs which possess greater definition and roundness and so are more faithful to their real appearance, I suddenly thought: Can I not project opaque objects if they are lit from the front?³¹

Van Haaften writes, “the genius of Berenice’s invention resides in her clear understanding of camera optics and her conceptual leap to the mechanics of image

enlargement. Basically, the image of any three-dimensional object, when illuminated inside a closed dark box, in a darkened room, is transmitted or projected via an enlarging lens mounted on the side of that box. When received by a photosensitive surface outside the box that transmission creates an enlarged image of the thing itself, with no intervening 'noisy' medium to filter or dilute the image, as does, for example, grain in a negative."³² Through this device, Abbott could make "beautifully realistic images of a thing photographed, with its most salient qualities and dimensionality in startling detail."³³ Abbott understood that this kind of photography would be particularly beneficial to the sciences, and as Van Haften demonstrates she spent a good portion of the 1940s and 50s trying to prove its scientific use to scientists at MIT and Swarthmore, for example, and the Carnegie Mellon Corporation and IBM, while also arguing for its aesthetic achievement to museums and publishers. While applying for a Guggenheim in 1941, she outlined the contributions the development of the Super-Sight would make: "that democratic life can only be maintained and developed where the whole citizenry is alert to problems of social existence and informed as to their nature."³⁴ But her project met with almost continuous patriarchal doubt, and she was rejected for the Guggenheim twice. Likewise, her contentious relationship with Edward Steichen, director of photography at MoMA, didn't help. She was critical of his "pictorialism," and he often marginalised her while supporting the work of other women photographers. Of Steichen she later said, "he rode roughshod over me."³⁵ Her experience of sexism and discrimination as a lesbian, feminist, and political radical, and especially as a self-taught scientist, proved a continuous impediment to recognition and income.

Nevertheless, she persisted. From 1944-45 Abbott worked as photo editor of *Science Illustrated*, exploring the theme “Adventures in Seeing.” She envisioned a Super-Sight series on “laws of nature” and “Eyes,” writing, “whose/what eye is this? Specific animals to photograph included frog, owl, reptile, bird, horse, cat, human, rat, cow, and bat,”³⁶ but the project never materialised. Her famous Super-Sight picture of “Soap Bubbles” appeared in the magazine, but by 1946 the magazine was bought out and featured models in the photographs, and Abbott resigned. While seeking greater support for her projects, she exhibited a few of the Super-Sight series in Steichen’s 1948 show at MoMA, *In and Out of Focus*, and at the Akron Institute of Art in 1950. In 1948 a few of the photos were included in a high school biology text book. In 1953 she revised her *Guide to Better Photography* to include the science pictures. In 1957 she was hired by Physical Science Studies Committee at MIT to illustrate physics text books, for which she developed a specific photographic approach, but in 1960 she was replaced by a younger man. Her science photos appeared in numerous text books in the subsequent decades. However, according to Van Haaften and Weissman, Abbott’s Super-Sight photographs were not showcased in her lifetime, and most of them have still not been published together.³⁷

Abbott and Rukeyser met in 1939, just when Rukeyser was working on her unauthorised biography of the physical mathematician and chemist Willard Gibbs. The book begins:

When one is a woman, when one is writing poems, when one is drawn through a passion to know people today and the web in which they, suffering, find themselves, to learn the people, to dissect the web, one deals with the processes themselves. To know the processes and the machines of process: plane and dynamo, gun and dam. To see and declare the full disaster that the people have brought on themselves by letting these processes slip out of the control of the

people. To look for the sources of energy, sources that will enable us to find the strength for the leaps that must be made.³⁸

Rukeyser makes a claim for the uses of language for disclosing and translating the process of scientific knowledge-making back to the people. Like Abbott, she understands the democratic implications in the failure to see the processes in which we are enmeshed. As if speaking to Rukeyser directly, Abbott writes in the same moment of “the problem of documenting science...and yet of endowing this material so strange and unfamiliar to the public with the poetry of its own vast implications.”³⁹ Rukeyser’s work on Gibbs and other discipline-defying topics in the 1940s provoked consistent sexist rebuke. As one reviewer sums up neatly in discussing *Gibbs*, “Both before and after writing this book, Miss Rukeyser has received for her intrepidity a number of slaps on the wrist—and even, from a particularly malicious review, one in the face. That a young woman poet should be so bold as to do a full-length intellectual biography of a neglected mathematical physicist, an abstruse man who still has terrors for specialists, obviously proved her a hussy and the book no good.”⁴⁰ Like Abbott, Rukeyser consistently challenged the boundaries within which she worked, and while, as Stefania Heim points out, “poets like Rukeyser who engaged scientific language, topics, metaphors, or methods were met with doubt and even ridicule,”⁴¹ there is also no doubt that for both Abbott and Rukeyser the fact that they were women proved the greater barrier to success than the fact that that they were attempting to develop new aesthetic, mechanical and formal modes for understanding science.

According to Van Haaften, Rukeyser, who sat on the board of Abbott’s *House of Photography*, was the only person who knew how the Super-Sight camera worked, as

Abbott guarded its process closely for fear of copyright infringement. Through their shared interest in the sciences and personal relationship, they developed their book project, alternately titled *Certain Ways of Seeing*, *Things*, *Seeing Things*, and ultimately *So Easy To See*. The book, as Rukeyser describes it, would consist of three parts: “a brief introduction to ‘prepare’ the seeing of these pictures”; “the photographs, accompanied by a running text set opposite the pictures, which occupy the right side of each spread...The text is photographed by the method of the pictures”; and “a brief conclusion on the nature of possibility.”⁴² In the archive there is a beautiful list of possible images that will be included in the book—apple, walnut, bug, watch, eye, corn, grass roots, etc.—along with Rukeyser’s numerous drafts of the first section. They first pitched the book to Rukeyser’s editor at Doubleday, John Sargent, who agreed to publish it on the condition that Edward Steichen would exhibit the works at MoMA as well. When he declined, the publisher backed out. Abbott and Rukeyser pursued other publishers—Scribner, Crown, and Simon and Schuster, and in 1962 they even corresponded about pitching their collaboration to World Publishing,⁴³—but the project was never realized; only a small portion of Rukeyser’s text was later used to introduce Abbott’s first collection in 1970.



Another Kind of Realism⁴⁴

In one draft of Rukeyser's introduction to *So Easy to See*, she opens with this narrative about the photograph of an Apple (intended to be the cover of the book):

"It's the moon!" said a child. I lived for a while in a room of an unfinished house where the carpenter and painters were still at work, and two or three of these pictures were on the walls. The painter came in and stopped short. "What's that?" he asked. And then he saw what it was. The carpenter had to see that, he said, and called the carpenter in. "Nothing like that," said the carpenter of the apple, "has ever been seen in the world." He went and got the contractor, brought him to face the apple, and said, "what do you make of this?" Tell me what you think it is, don't tell me what it reminds you of."

Some have seen wood or a cock in the walnut, leather in the oak leaf, the lines of the eyebrow in the iron fillings, fish-eye and butter-fly wing. But it is not only correspondences that are seen here; it is the close familiar thing seen new. One woman protested. "No, I don't want it," and she made a gesture, "I'm just not used to modern painting" [one can't get used to the atom bomb, and I can't take another kind of seeing. It's too disturbing.]"

But the house painter's disturbance was of a different order. He asked, "why didn't I know what they were, when I first saw the apple and the walnut? They're right in front of me. Nothing is artsy or faked; these are wonderful pictures. What's the matter with me, that I didn't see the things?" And after a while, "I'm a layman—how are you going to be sure the layman can see them? You'll have to prepare people somehow."

Prepare people to look at what they know? Prepare them to see things that are deep in our lives, deep in childhood—a face, a wing, a hand?
Prepare people to see?⁴⁵

Rukeyser's rhetorical astonishment that someone needs to be "prepared" to see what they already know from childhood, and her assertion that we harbor a latent openness to the connectivity of things and that we can derive meaning from sources of knowledge otherwise obfuscated by hegemonic norms, can be understood, in part, through her interest in Jung's symbolic interpretations, but it is how she endows the aesthetic symbol with the power to open us to those sources of knowledge that is particularly important. Whereas Barthes would assert in *Camera Lucida* that "every photograph is

contingent (and thereby outside of meaning), that photography can not signify (aim at generality) except by assuming a mask,”⁴⁶ Rukeyser and Abbott believe that the Super-Sight produces a photograph that can actually expose to us the “essence” of a thing that we fail to see ordinarily, but know to be there.⁴⁷ In Rukeyser’s narrative, the painter looks at an image of a roughly sliced half of an apple that is somehow as startling as the knowledge of the atom bomb for another. The image is startling in its realness, absolutely, but it’s also startling in its “correspondences.” It is impossible to not see the image’s vaginal approximation. “The apple,” Rukeyser continues, “is here in its wetness and life, with its many textures, its flesh, its moment of ripeness—and its infinite suggestive correspondences with other textures and other flesh.”⁴⁸ What Abbott’s invention can do is make us see what the “human eye can almost see” but doesn’t. The Super-Sight brings the texture of the flesh, the seeds, the core so close to the eye that it would be hard not to see also its “correspondences” to other “close familiar things.” The viewer makes meaning by both holding together the real and referent simultaneously. This is not an apolitical assertion that undermines what Benjamin describes as the “dialectical image,” where the past and present meet and are interpreted through historiographic language, but an even more radical assertion about a deeper knowledge that Rukeyser and Abbott feel is “clouded,” and that can be recovered through “another kind of seeing.” Rukeyser continues:

Another kind of realism is possible through these photographs. And physical realism—of which our lives have very little indeed—lead at once to spiritual materialism. The sentimental eye has closed over many of these perceptions; here it is freed again.⁴⁹

It is hard not to read their project as one partly about lesbian desire—that their narrative of seeing/not seeing might be something like Terry Castle’s “Apparitional Lesbian,”⁵⁰ a spectral presence, something that we know is there but that we chose not to see. When Rukeyser asks if we need to be prepared to “see” what is actually in front of us, she is asking us complex things—about the work itself and how images are absorbed, to be sure, and the political and social implications of mediated culture. But we are also invited to think about the things we know to be true—the symmetry of the apple and the vagina, and thus the connectedness of the biological worlds. Maybe it is a question of reading the apple’s “correspondences”—which make us think about the environment, bees, pollination, molecules, the atom (Adam), myth, bodies, birth, lesbian desire, sex, the work of women—things we might understand intuitively, but fail or refuse to see. There is no mistake that when Rukeyser and Abbott open their book with the image of the split apple, along with Rukeyser’s narrative of the vagina analogy, they are themselves making more than a series of correspondences about the relationships between the arts and sciences; for they are also signaling us to think about the myth of Adam and Eve, about the apple and its trailing questions about female sexuality and agency. It suggests Newton and his apple, then the splitting of the atom and nuclear physics. “Analogies are dangerous,” Rukeyser writes in *Willard Gibbs*, “but they are most dangerous when they are most usable.”⁵¹

A Kind of Thinking and a Kind of Hope

Rukeyser and Abbott’s intent was to begin *So Easy to See* with a quotation from Francis Bacon’s *Novum Organum* (1620), in which he theorizes the development of the scientific method and inductive reasoning (Abbott would use some of the same section

in her reprint of *A Guide to Better Photography*). In the quotation Bacon writes of the inadequacy of the microscope, stating “for if the invention could be extended to greater bodies, or the minute parts of greater bodies, so that a piece of cloth could appear like a net, and the latent minutiae and irregularities of germs, liquids, urine, blood, wounds and many other things could be rendered visible, the greatest advantage would, without doubt, be derived.” In framing Abbott’s work in context of Bacon, Rukeyser foregrounds her brilliance and inventiveness in a history of scientific discovery where women have almost always been made to seem invisible. At the same time, Rukeyser is engaging contemporaneous philosophical debates by way of Abbott’s inventions. In 1944, Adorno and Horkheimer, living in exile in the US, circulated the *Dialectics of Enlightenment*, in which they question the very notion of scientific progress and enlightenment thinking. How, they wonder, can the progress of modern science, meant to liberate people through knowledge, also usher in a continuous period of totalitarianism, war, and the development of weapons of annihilation? They turn to the work of Bacon, in particular, for promoting the “instrumentalisation of reason.” They write:

The “many things” which, according to Bacon, knowledge still held in store are themselves mere instruments: the radio as a sublimated printing press, the dive bomber as a more effective form of artillery, remote control as a more reliable compass. What human beings seek to learn from nature is how to use it to dominate wholly both it and human beings. Nothing else counts. Ruthless toward itself, the Enlightenment has eradicated the last remnant of its own self-awareness. Only thought which does violence to itself is hard enough to shatter myths.⁵²

Rukeyser seems to situate her collaboration with Abbott in response, writing, “in work like these pictures, nature is used as a symbol of itself; but the realism goes farther than we have yet gone. And there is always the danger of the real, which assumes a mythological character, an aspect of menace in a society that hides and evades and

hurries towards compromise, hurries toward self-censorship. The pictures offer another attitude toward reality and toward truth.”⁵³ It’s not that the unending calamity of war and genocide, “the nightmare of returns,” in Rukeyser’s words, isn’t a central concern in their work and life—it’s precisely because those *are* their central concerns that they, working in the atomic age, situate scientific discovery as central to questions of ontological inquiry.

Is it possible for Abbott’s images to do this kind of political and philosophical labor alone, or do we need Rukeyser’s text to help us to get there? It is, I think, the job of the viewer/reader to make those leaps, to find the correspondences. Perhaps that is the particularly interesting aspect of this collaboration—it is at once doing a kind of mid-century theorizing about the political role of art, while offering a particularly feminist intervention: it wants to democratize our sight, it wants to dissolve the gendered discourses of specialization, it wants to reveal to us the systems of power and knowledge broadly, to make visible the bodies and desires that are so often apparitional. Rukeyser ends the outline of the project with this assertion:

It will deal with the way science and art meet and might meet in our time. It will talk about the role of novelty in our life, and how—in art—its function is partly to give us the sense of sameness, the sense of repetition, since only through invention do we receive again the freshness that comes with each step in art and life. It will talk about these photographs, and the extraordinary declaration of the essence of the things which they make...These photographs give us a fierce and concentrated fish-life of the fish, for example, with the subjective element reduced to a minimum, through clarity and concentration. We consider the purity that goes into a new art-form, and the moment in time that calls for the invention of new forms. We look at the general corruption of consciousness about us, and how many pressures in our life ease us toward that kind of death. We see the truest of the materialists in art trying again and always to free us, and we see what these correspondences in the shapes of life, and what these attempts at freedom in every kind of thought, can mean. The photographs are part of a kind of thinking and a kind of hope.⁵⁴

These “correspondences” are manifest in Abbott and Rukeyser’s relationship—the back and forth of written communication and the dialogue essential to collaborative practices—as well as in the project itself, one that seeks to expose objective representation and to liberate the viewer from the ideological and subjective interpretations that “cut-off” thinking: sexism, racism, disgust at the body, etc. In a radical democratization of high modernism, Rukeyser asserts that the “direct treatment of the thing”—the exposure of its essence—frees us to find deeper equivalencies, ones that connect us, make us face each other. To bring the “fish-life of the fish” to the viewer is to provide “a new beginning, another acceptance of life.”⁵⁵

Clearly, Rukeyser and Abbott’s interest in the ontology of things—their aura, essence and power—can be read in a matrix of modernist thought and art (Heidegger, Levinas, Benjamin, Pound, Williams, Woolf, etc.). But there is something uniquely forward-looking about their collaborative project. Think of how Bill Brown frames his seminal work on “Thing Theory” in 2001: “the real, of course, is no more phenomenal in physics than it is in psychoanalysis or, as in psychoanalysis, it is phenomenal only in its effects. Somewhere beyond or beneath the phenomena we see and touch there lurks some other life and law of things, the swarm of electrons.”⁵⁶ In *So Easy to See*, Rukeyser and Abbott theorized an interdisciplinary approach to the “thing” in similarly complex ways half a century earlier, only they weren’t recognized for it. In fact, Brown’s special issue of *Critical Inquiry* dedicated to the topic uses Sidney Nagel’s and Itai Cohen’s science photo of “a drop of glycerol breaking apart” on the cover.

Rukeyser and Abbott’s lost collaboration, so connected to and expanding upon the theoretical, scientific and artistic modes of the 20th-century, was never realized because

of their status as scientific amateurs, as women and lesbians, as philosophical, artistic and political others. They did recuperate each other, though: Rukeyser uses Abbott's photograph of her eye for her book about the enlightenment explorer and astronomer Thomas Hariot; and Rukeyser writes the 1970 foreword to Abbott's book. It is impossible not to see the loss of their work as a result of deeply ingrained sexism, of the failure to see women as inventors and discoverers, philosophers and geniuses, and it should provide another warning, amongst many, about how much is lost, is wasted, by our failure "to see things as they really are." Rukeyser ends the 1970 introduction to Abbott's first collection on this note of loss: "There are those who lived through the period when the pictures were made and never recognized...How is it possible that this book was not with us years ago? Is it that the time has finally come around to this artist, explorer, discoverer, and these forms pour through her self to us." ⁵⁷ In one of her final poems, "An Unborn Poet," written in 1979, Rukeyser situates her relationship with Abbott as part of a 20th-century network of women recuperating and collaborating with each other. It is a poem dedicated to Alice Walker, with fragments of experiences with Zora Neale Hurston (whom Walker would famously recuperate) and Denise Levertov, but Abbott is given two stanzas, lovingly. I'll end on the first:

Peddler, drowned pier, birdcage — — images
caught in your lens forever, Berenice.
You said, "I need a light
great as the sun. No. Greater than the sun."
You said, "I must invent: clothes, architecture.
a camera that is a room, the child of
camera obscura."
I went journeying in Baptista della Porta.
I went marketing on Sixth Avenue
and so we found the fish-head, Berenice,

you turned his teeth to icicles,
and his great tongue— —
I found the apple and the ear of corn.
Twelve huge lights went off blazing at my left eye.
Visionary lavender, flaming. Then lime-green burning. A vision of sight.
Then blindness. Blindness. Black, returning me to sight.⁵⁸

Notes

¹ Photo of Muriel Rukeyser's "Eye" taken with Abbott's Super-Sight camera in the 1940s.

Berenice Abbott Archive, Ryerson Image Centre © Ronald Kurtz, administered by Commerce Graphics Ltd. Inc.

² NYPL Berg Collection, Muriel Rukeyser Papers, *Letter from Berenice Abbott* ALS Aug 5, 1948. With special thanks to Bill Rukeyser for permission to publish the archival materials.

³ They met at a party in 1939 and were neighbors in Greenwich village for some time.

⁴ Peter Middleton traces the relationship between the arts and sciences in this period in his book *Physics Envy: American Poetry and the Sciences in the Cold War and After* (Chicago, 2015)

⁵ This is from a proposal Abbott sent to the Carnegie Mellon Corporation (Charles Dollard, Carnegie Corporation to BA, TLS, Mar 25, 1940 CG) As qtd in Julia Van Haaften's forthcoming Norton biography of Abbott.

⁶ Julia Van Haaften, *Berenice Abbott: A Life in Photography* (New York, 2018), p. 281.

⁷ Terri Weissman, *The Realism of Berenice Abbott* (Berkeley, 2011), p. 81.

⁸ SBB/BA NYPL, Berenice Abbott, Letter to Charles C. Adams TLC Apr 24, 1939.

⁹ Muriel Rukeyser, *Willard Gibbs* (New York, 1942), p. 5.

¹⁰ Middleton, *Physics Envy* (Chicago, 2015), p. 103.

¹¹ Rukeyser, *The Life of Poetry* (here after LOP) (Ashfield, 1996), p. 17.

¹² Library of Congress (here after LOC), Box 11:12, Washington D.C., unpublished, Rukeyser, *Outline for Text of So Easy to See*, ND, p. 2.

¹³ See for instance, the work of Marcus, Showalter, Rich, Walker, Gilbert and Gubbar, etc.

¹⁴ For example, I could not have produced this work if Abbott's biographer Julia Van Haaften hadn't shared archival resources, or Stefania Heim hadn't already worked through the archival traces of *Willard Gibbs* or Catherine Gander hadn't written about Rukeyser's other photo-text projects.

¹⁵ Rukeyser, LOP, p. 40.

¹⁶ LOC, Box 11:12, Washington D.C., unpublished, Rukeyser, Introduction, ND, p. 1.

¹⁷ Robert Oppenheimer, "The Growth of Science and the Structure of Culture," *Daedalus*, Winter 1958.

¹⁸ Muriel Rukeyser, "We Came for The Games" (Esquire, 1976), reprinted in *Savage Coast* (New York 2013).

¹⁹ *The Craft of Poetry*, "New York Quarterly Review" (New York, 1974), p. 130-31.

²⁰ See for example, Catherine Gander's *Muriel Rukeyser and Documentary: The Poetics of Connection* (Edinburgh, 2013) or my *Intro to Savage Coast* (New York, 2013).

²¹ FOI, Rukeyser, FBI file.

²² Rukeyser, "Words and Images," *New Republic* 2 Aug. 1943, pp.140-142.

²³ as qtd. in Weismann, p. 76.

²⁴ *ibid*

²⁵ Weissman, p. 79.

²⁶ Suzanna Calev (<https://blog.mcny.org/2013/06/25/berenice-abbott-and-elizabeth-mccausland-in-a-changing-new-york/>)

²⁷ *ibid*

²⁸ LOP, p. 137

²⁹ Berenice Abbott, *A Guide to Better Photography* (New York, 1941), p. 1-2.

³⁰ Van Haaften, p. 279.

³¹ *ibid*

³² *ibid*

³³ *ibid*

³⁴ As qtd in Van Haaften, p. 283.

³⁵ *ibid*

³⁶ *ibid*, 287.

³⁷ In 2012 the extraordinary science experiment photographs were finally published together in *Berenice Abbott: Documenting Science*.

³⁸ Willard Gibbs, 12.

³⁹ 'Manifesto,' as qtd in Weissman, p. 181.

⁴⁰ Philip Blair Rice, "Gibbs and the Age of Power." *Rev. of Willard Gibbs. Kenyon Review* 5.2 (1943): 310–12.

⁴¹ Stefania Heim, "'Another form of life': Muriel Rukeyser, Willard Gibbs, and Analogy" *Journal of Narrative Theory*, Volume 43, Number 3, Fall 2013, pp. 357-383 (Article), gup. 368.

⁴² Library of Congress (here after LOC), Box 11:12, Washington D.C., unpublished, Rukeyser, *Outline for Text of So Easy to See*, ND, pp. 1.

⁴³ This can be found in their correspondences at the NYPL Berg Collection and the Library of Congress.

⁴⁴ Berenice Abbott "Apple" taken with her Super-sight camera. Berenice Abbott Archive, Ryerson Image Centre © Ronald Kurtz, administered by Commerce Graphics Ltd. Inc

⁴⁵ Library of Congress (here after LOC), Box 11:12, Washington D.C., unpublished, Rukeyser, draft So Easy to See, ND, pp. 4.

⁴⁶ Roland Barthes, *Camera Lucida*. Trans Richard Howard (New York 1980) pp. 34

⁴⁷ (perhaps Rukeyser was reading Heidegger?: "Has the thing never yet come near enough for man to learn how to attend sufficiently to the thing as thing?")

⁴⁸ Library of Congress (here after LOC), Box 11:12, Washington D.C., unpublished, Rukeyser, Draft 2, ND, pp. 4.

⁴⁹ Library of Congress (here after LOC), Box 11:12, Washington D.C., unpublished, Rukeyser, Outline for Text of So Easy to See, ND, pp. 6.

⁵⁰ Terry Castle, *The Apparitional Lesbian: Female Homosexuality and Modern Culture* (New York , 1995.

⁵¹ Willard Gibbs, pp. 365.

⁵² *ibid* The German text was circulated in the 40s and published in 47, but there was no English translation until the 70s. I don't think, though, that this should preclude the possibility that both Abbott and Rukeyser - situated as they were in literary, artistic and political circles and fluent in multiple languages - didn't have access to it.

⁵³ Library of Congress (here after LOC), Box 11:12, Washington D.C., unpublished, Rukeyser, So Easy to See, ND, pp. 4.

⁵⁴ Library of Congress (here after LOC), Box 11:12, Washington D.C., unpublished, Rukeyser, So Easy to See, ND, pp. 4.

⁵⁵ Library of Congress (here after LOC), Box 11:12, Washington D.C., unpublished, Rukeyser, So Easy to See, ND, pp. 6.

⁵⁶ Bill Brown, *Critical Inquiry*, Vol. 28, No. 1, Things. (Autumn, 2001), p. 1-22. 16.

⁵⁷ *ibid*

⁵⁸ Muriel Rukeyser, *The Collected Poems*. Eds Herzog and Kauffman (Pittsburgh, 2006) p. 591-2.